S2500 SERIES

Varied Service Characteristics Versatile IPv6 Solution Complete Security Mechanism

Carrier-Level High Reliability Layer-3 Routing Functions

Advanced Hardware Architecture and Industry-leading Port Density

Supports Maximum 24 GE RJ45 Ports and 4 GE SFP Uplink Ports
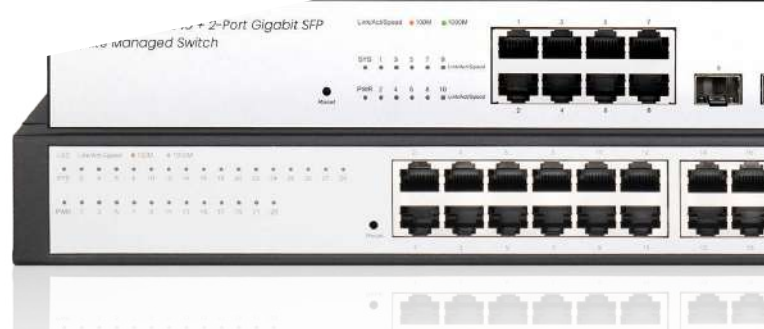
Product Characteristics

Carrier-Level Ethernet Access Switch

S2500 Series supports the carrier-level Ethernet-ring protection protocol with less than 50ms recovery time, STP/RSTP/MSTP, backup uplink ports,and LACP link aggregation to cater to the requirements of high reliability of carriers;

S2500 Series has powerful ACL functions to access and control L2-L7 data based on physical port, providing carriers flexible and various policy control methods;

S2500 Series supports In-Service Software Upgrade (ISSU) to ensure the unremitting data forwarding during system upgrade;

S2500 Series supports various L2 multicast functions such as IGMP-snooping, fast-leave and MVR to fully meet the operation requirements of carrier's IPTV.

Product Overview

BDCOM S2500 Series is a new-generation intelligent gigabit access switch designed for carrier's IP MAN and enterprise networks. Based on the new-generation high-performance hardware and BDROS platform, it supports functions such as ACL, QinQ and QoS. Its simple management mode and flexible installation can meet the requirement of any complicated scenarios.

BDCOM S2500 Series has 2 models: S2500-8T2S, S2500-24T4S.

Product Characteristics

Comprehensive IPv6 Solutions

S2500 Series supports the IPv6 protocol suite, IPv6 neighbor discovery, ICMPv6 and Path MTU discovery.

S2500 Series supports Ping, Traceroute, Telnet, SSH and ACL on the basis of IPv6, meeting IPv6 networks' equipment management requirements and service control requirements;

Enhanced QoS

S2500 Series supports priority retagging and complicated flow classification based on VLAN, MAC, source address, destination address, IP or priority, better streamlining carrier's services.

S2500 Series provides flexible bandwidth control policies, supporting port-/flow-based flow limit, ensuring the line speed forwarding of each port.

S2500 Series supports multiple queue schedule algorithms such as SP, WRR and "SP + WRR".

Security+

Equipment-level security: The advanced hardware infrastructure design realizes the level-based packet schedule and packet protection, prevents DoS-/TCP- related SYN Flood, UDP Flood, Broadcast Storm or large traffic attacks, and supports level-based command line protection, endowing different levels of users with different management permissions.

Perfect security authentication mechanisms: IEEE 802.1x, Radius and BDTacacs+.

S2500 Series supports storm/multicast/unicast limit, ensuring the normal running of equipment in harsh network conditions.

S2500 Series supports perfect ring detection mechanism, ensuring the long-term stable running of network.

S2500 Series supports port isolation within the same VLAN, DHCP-Snooping, and IP + MAC + Port binding.

Easy Management and Maintenance

S2500 Series supports many management modes such as the CLI, Telnet, SSH, SSL and SNMP.

S2500 Series supports the WEB management mode, which is easy and efficient for installing and debugging the device.

S2500 Series supports FTP,TFTP and SFTP.

S2500 Series supports ISSU (In-Service Software Upgrade).

S2500 Series supports SNMP and BDCOM NMS smart network management platform. The combination realizes automatic equipment discovery, network topology management, equipment configuration management, performance data statistics and analysis and trouble management.

S2500 Series supports Zero Touch Provisioning(ZTP) function to minimize manual operator intervention and helps reduce customers' initial deployment costs.
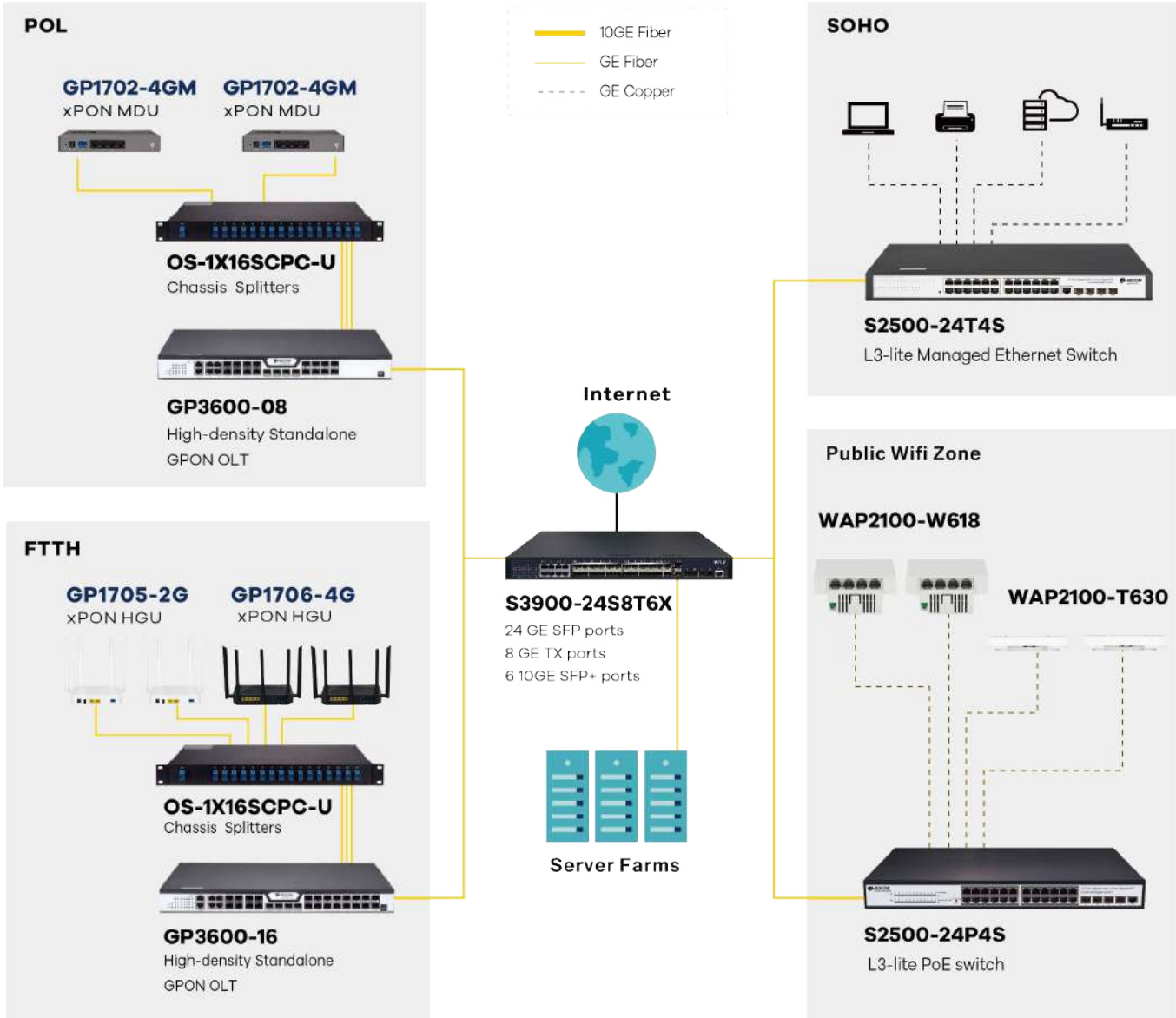
Model lists

S2500-8T2S

- 8-Port Gigabit RJ45
- 2-Port Gigabit SFP

S2500-24T4S

- 24-Port Gigabit RJ45
- 4-Port Gigabit SFP

Application Diagram

POL

GP1702-4GM
xPON MDU

GP1702-4GM
xPON MDU

OS-1X16SCPC-U
Chassis Splitters

GP3600-08
High-density Standalone
GPON OLT

── 10GE Fiber
── GE Fiber
---- GE Copper

SOHO

S2500-24T4S
L3-lite Managed Ethernet Switch

FTTH

GP1705-2G
xPON HGU

GP1706-4G
xPON HGU

OS-1X16SCPC-U
Chassis Splitters

GP3600-16
High-density Standalone
GPON OLT

Internet

S3900-24S8T6X
24 GE SFP ports
8 GE TX ports
6 10GE SFP+ ports

Server Farms

Public Wifi Zone

WAP2100-W618

WAP2100-T630

S2500-24P4S
L3-lite PoE switch

Product Specifications

Item		S2500-8T2S	S2500-24T4S
Interface		8-Port Gigabit RJ45 2-Port Gigabit SFP	24-Port Gigabit RJ45 4-Port Gigabit SFP
Console		1 RJ45 port, 1 RST button	1 RJ45 port, 1 RST button
Backplane		20 Gbps	56 Gbps
Forwarding rate		15 Mpps	42 Mpps
Chassis	Dimensions (WxDxH)(mm)	280x180x44	440x210x44
	Weight(KG)(empty)	1.55	2
Package	Dimensions (WxDxH)(mm)	346x289x92	555x295x88
	Weight(KG)	2. 55	3
Power consumption	no-load	<3W	<7W
	full-load	10W	20W
Power supply	AC: 100V-240V, 50Hz±10%	15W	25W
Total output BTU (1000BTU/H=293W)		51.19	85.32
Fan number		no	
Noise@25°C(dBA)		0	
MTBF(H)		>200,000	
Forwarding mode		Store-forward	
Flash (MB)		16	
DRAM (MB)		128	
MAC		8K	
Buffer size(Mb)		4.1	
Jumbo frame		9K	
Total SVI		10	

Features

VLAN
- 4K Active VLAN
- QinQ & Selective QinQ
- GVRP, Private VLAN
- Voice VLAN

Spanning Tree
- 802.1D (STP)
- 802.1W (RSTP) and 802.1S (MSTP)
- BPDU guard, root guard and loopback guard

Multicast
- IGMP v1/2/3
- IGMP Snooping
- IGMP Fast Leave
- IGMP Filter
- MVR

IP
- Static route
- RIP, OSPF
- 128 routing table
- IPv4/IPv6 dual stack
- DHCP Server/Client/Relay

QoS
- CAR, HQoS, MAC/IP/TCP/UDP/VLAN/COS/DSCP/TOS based
- QoS,802.1P/DSCP priority re-labeling, SP, WRR, and "SP+WRR",
- Tail-Drop, WRED, flow monitoring and traffic shaping

Security
- Port isolation, Port security, and "IP+MAC+port" binding, MAC sticky, DHCP Snooping and option 82, DAI & IP source guard, PPPoE+,
- IEEE 802.1x , Radius and BDTacacs+
- L2/L3/L4 ACL flow identification and filtration Anti-attack from DDoS, TCP's SYN Flood, UDP Flood, etc.
- Broadcast/multicast/unknown unicast storm-control
- MD5, SHA-256, RSA-1024, AES256, etc.

Reliability
- Static/LACP link aggregation, Interface backup
- EAPS and ERPS
- ISSU

Management
- Console, Telnet, SSH v1/2, HTTP, HTTPS, SNMP v1/v2/v3, RMON
- TFTP, FTP, SFTP
- NTP
- ZTP(Zero Touch Provisioning)
- SPAN, RSPAN

Accessories
- Power cord, rackmount kits, console cable, anti-slipping pad

Environment
- Operating temperature/humidity: 0°C -50°C, 10%-90%non-condensing
- Storage temperature/humidity: -20°C -70°C, 5%-95% non-condensing

Certification
- CE, FCC, ROHS

Ordering Information

Item	Description
S2500 Series switch	
S2500-8T2S	8-Port Gigabit RJ45 + 2-Port Gigabit SFP L3-lite Managed Switch (single AC-220V power supply; fanless, 1U, desktop or rack-mounted installation)
S2500-24T4S	24-Port Gigabit RJ45 + 4-Port Gigabit SFP L3-lite Managed Switch (single AC-220V power supply; fanless, 1U, standard 19-inch rack-mounted installation)
Optical Modules	
100M Optical Modules	
FSFP-SX-1310	100M SFP multi-mode (2Km, 1310nm, LC, DDM)
FSFP-LX-15	100M SFP single-mode (15Km, 1310nm, LC, DDM)
FSFP-LX-40	100M SFP single-mode (40Km, 1310nm, LC, DDM)
FSFP-ZX-80	100M SFP single-mode (80Km, 1550nm, LC, DDM)
FSFP-LX-SM1310-20-BIDI FSFP-LX-SM1550-20-BIDI	100M SFP single-mode, single fiber (20Km, TX1310/RX1550, LC, DDM) 100M SFP single-mode, single fiber (20Km, TX1550/RX1310, LC, DDM)
FSFP-LX–SM1310-40-BIDI FSFP-LX–SM1550-40-BIDI	100M SFP single-mode, single fiber (40Km, TX1310/RX1550, LC, DDM) 100M SFP single-mode, single fiber (40Km, TX1550/RX1310, LC, DDM)
FSFP-LX-SM1310-80-BIDI FSFP-LX-SM1550-80-BIDI	100M SFP single-mode, single fiber (80Km, TX1310/RX1550, LC, DDM) 100M SFP single-mode, single fiber (80Km, TX1550/RX1310, LC, DDM)
GE Optical Modules	
GSFP-TX-B	GE SFP-to-RJ45 module
GSFP-SX-D	GE SFP multi-mode(500m,850nm,LC,DDM)
GSFP-LX-10-D	GE SFP single-mode(10Km,1310nm,LC,DDM)
GSFP-LX-20-D	GE SFP single-mode (20Km, 1310nm, LC, DDM
GSFP-LX-40-D	GE SFP single-mode (40Km, 1310nm, LC, DDM)
GSFP-ZX-80-D	GE SFP single-mode (80Km, 1550nm, LC, DDM)
GSFP-ZX-120-D	GE SFP single-mode (120Km, 1550nm, LC, DDM)
GSFP-LX-SM1310-10-BIDI GSFP-LX-SM1550-10-BIDI	GE SFP single-mode, single fiber (10Km, TX1310/RX1550, LC, DDM) GE SFP single-mode, single fiber (10Km, TX1550/RX1310, LC, DDM)
GSFP-LX-SM1310-20-BIDI GSFP-LX-SM1550-20-BIDI	GE SFP single-mode, single fiber (20Km, TX1310/RX1550, LC, DDM) GE SFP single-mode, single fiber (20Km, TX1550/RX1310, LC, DDM)
GSFP-LX–SM1310-40-BIDI GSFP-LX–SM1550-40-BIDI	GE SFP single-mode, single fiber (40Km, TX1310/RX1550, LC, DDM) GE SFP single-mode, single fiber (40Km, TX1550/RX1310, LC, DDM)
GSFP-LX-SM1490-80-BIDI GSFP-LX-SM1550-80-BIDI	GE SFP single-mode, single fiber (80Km, TX1490/RX1550, LC, DDM) GE SFP single-mode, single fiber (80Km, TX1550/RX1490, LC, DDM)
GSFP-LX-SM1490-120 GSFP-LX-SM1550-120	GE SFP single-mode, single fiber (120Km, TX1490/RX1550, LC, DDM) GE SFP single-mode, single fiber (120Km, TX1550/RX1490, LC, DDM)